

IN THE CLAIMS

CLAIM 1 (Previously Presented) A structure comprising angled flying lead wire structures attached to an electronic circuit component comprising:

said flying lead wire structures are bonded to a first surface of said electronic circuit component;

said wire structures comprise a desired shape in said flying lead wire; and

said flying lead wire having a shear blade cut end.

CLAIM 2 (Previously Presented) A structure according to claim 1, further including said flying lead wires comprise a plurality of angles relative to the surface of said electronic circuit component.

CLAIM 3 (Previously Presented) A structure according to claim 2, said flying lead wires comprise a plurality of heights relative to the surface of said electronic circuit component.

CLAIM 4 (Previously Presented) A structure according to claim 3, further including said flying lead wires comprise a shape selected from the group consisting of linear, piece wise linear, continuously curved, and combinations thereof.

CLAIM 5 (Previously Presented) A structure comprising flying lead wire structures attached to an electronic circuit component comprising:

said flying lead wire structure is bonded to a first surface of said electronic circuit component;

said wire structure comprise a desired shape in said flying lead wire; and

a small nick on opposite sides of said wire.

CLAIM 6 (Previously Presented) A structure according to claim 5, further including said flying lead wires comprise a plurality of angles relative to the surface of said electronic circuit component.

CLAIM 7 (Previously Presented) A structure according to claim 6, further including said flying lead wires comprise a plurality of heights relative to the surface of said electronic circuit component.

CLAIM 8 (Previously Presented) A structure according to anyone of claims 1 or 5, further including said flying lead wire further comprise disposed in a predetermined position a sheet of material having a plurality of openings therein through which said flying lead wires project.

CLAIM 9 (Previously Presented) A structure according to claim 8, further including a compliant frame structure, wherein a compliant frame structure is used to support said sheet of materials.

CLAIM 10 (Previously Presented) A structure according to claim 8, wherein said sheet is spaced apart from said surface by an electronic component to provide flexible support.

CLAIM 11 (Previously Presented) A structure according to claim 8, wherein said sheet is spaced apart from said surface of the electronic component by a rigid support, said rigid support serves as a stand-off, or hard stop, to limit the degree of movement of said wire tip end in a direction perpendicular to said surface.

CLAIM 12 (Previously Presented) A structure according to claim 8, wherein said sheet is spaced apart from said surface of the electronic component by a support with the composite structure of both a rigid and a compliant layer.

CLAIM 13 (Previously Presented) A structure according to claim 10, wherein a space between said surface of the electronic component and said sheet is filled with a compliant medium.

CLAIM 14 (Previously Presented) A structure according to claim 13, wherein said the compliant medium is an elastomeric material.

CLAIM 15 (Previously Presented) A structure according to claim 13, wherein said the compliant medium is a foamed polymer material.

CLAIM 16 (Previously Presented) A structure according to claim 10, wherein said flexible support is selected from the group consisting of a spring and an elastomeric material.

CLAIM 17 (Previously Presented) A structure according to claim 8, wherein said wire tip ends comprise a structure selected from the group consisting of a protuberance, a spherical contact geometry, a straight contact end, a sharp spike, multiple sharp spike, sharp nodules and the combination of the above.

CLAIM 18 (Previously Presented) A structure according to claim 8, wherein said wire end tips are coated with a material selected from the group consisting of Ir, Pd, Pt, Ni, Au, Rh, Ru, Re, Co, Cu, and their alloys.

CLAIM 19 (Previously Presented) A structure according to claim 8, wherein said angle flying lead wire is coated with a material selected from the group consisting of Ir, Pd, Pt, Ni, Au, Rh, Ru, Re, Co, Cu, and their alloys.

CLAIM 20 (Previously Presented) A structure according to claim 8, wherein said sheet comprises materials selected from the group consisting of Invar laminate, a Cu/Invar/Cu laminate, molybdenum laminate.

CLAIM 21 (Previously Presented) A structure according to claim 8, wherein said sheet comprises a material selected from the group consisting of a metal, a polymer, a semiconductor and dielectric.

CLAIM 22 (Previously Presented) A structure according to claim 20, wherein said the sheet is overcoated with a polymer layer.

CLAIM 23 (Previously Presented) A structure according to claim 20, wherein the sheet is overcoated with an insulating layer.

CLAIM 24 (Previously Presented) A structure according to claim 20, wherein the sheet is overcoated with a thin compliant polymer layer.

CLAIM 25 (Previously Presented) A structure according to claim 20, wherein the sheet is laminated between two insulating layers.

CLAIM 26 (Currently Amended) ~~An apparatus for using said A structure of~~ according to claim 8, to test an electronic device further comprising:

~~a means for holding said structure of claim 1~~ said electronic circuit, means for retractably moving said ~~structure of claim 1~~ electronic circuit towards and away from said electronic device so that said wire tip ends contact electrical contact locations on said electronic device, and means for applying electrical signals to said elongated electrical conductors.

CLAIM 27 (Previously Presented) A structure according to claim 1, wherein said electronic circuit component is a substrate having an electrical conductor pattern.

CLAIM 28 (Previously Presented) A structure according to claim 1, wherein said angled flying lead bond structure further comprise a coating.

CLAIM 29 (Previously Presented) A structure according to claim 5, wherein said flying lead wire structures further comprise a coating.

CLAIM 30 (Previously Presented) A structure according to claim 28, wherein said coating is selected from the group consisting of Ir, Pd, Pt, Ni, Au, Rh, Ru, Re, Co, Cu and their alloys.

CLAIM 31 (Previously Presented) A structure according to claim 29, wherein said coating is selected from the group consisting of Ir, Pd, Pt, Ni, Au, Rh, Ru, Re, Co, Cu and their alloys.